

REMARKS

I. INTRODUCTION

Claims 1-23 are currently pending in this application with claims 1-22 presently standing rejected and claim 23 presently being objected to. Claim 11 has been amended, as set forth above. In light of the amendments made herein above and the arguments to appear below, Applicant respectfully requests reconsideration of the rejections set forth below.

II. AMENDMENTS TO THE CLAIMS

Claim 11 has been amended to read “a pinion shaft” rather than “said pinion shaft” in order to provide proper antecedent basis for the claim element. Applicants respectfully submit that no new matter has been added.

III. REJECTION OF CLAIMS 11-15 UNDER 35 U.S.C. § 112

Claims 11-15 stand rejected under 35 U.S.C. § 112, Second Paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In particular, the Examiner points out that claim 11 as filed recites the limitation “said pinion shaft” and that there is insufficient antecedent basis for this limitation.

Applicant respectfully submits that claim 11 has been amended as set forth above to provide for “a pinion shaft” rather than “said pinion shaft”. Applicant respectfully submits that this amendment provides the required antecedent basis, and therefore, respectfully submits that this rejection has been overcome. Accordingly, Applicant respectfully requests that this rejection be reconsidered and withdrawn.

IV. REJECTION OF CLAIMS 1-20 UNDER 35 U.S.C. § 102(a)

Claims 1-20 stand rejected under 35 U.S.C. § 102(a) as being anticipated by PCT Application No. WO 02/099311 A2 belonging to Dana Corporation (“the Dana reference”). Applicant submits that the rejection of claims 1-20 is improper because the Dana reference does not disclose or suggest all of the limitations recited in claims 1-20. In re Paulsen, 30 F.3d 1475, 1478-79, 31 U.S.P.Q.2d 1671 (Fed. Cir. 1994); Verdegaal Bros. v. Union Oil Co. of California, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1997) (“A claim is anticipated only if each

and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.”).

Independent claims 1, 11 and 16 each recite “[a] method of assembling a drive axle assembly of a tandem axle assembly” wherein the various components of the drive axle assembly are inserted into the carrier housing of the assembly through a rear opening. For instance, the claimed method includes the step of “inserting a power divider subassembly having a plurality of differential gears into said carrier housing through said rear opening.” (emphasis added) Claims 11 and 16 and dependent claim 5 (dependent on claim 1), further include the steps of “inserting a differential lock clutch member into said carrier housing through said rear opening” and “inserting a shift fork subassembly into said carrier housing through said rear opening.” (emphasis added) Additionally, claim 16 and dependent claims 7-10 (dependent on claim 1) set forth a specific order of steps for the inventive method. Applicant respectfully submits that the Dana reference does not disclose a method of assembling a drive axle assembly of a tandem axle assembly meeting the above-recited limitations.

The Dana reference discloses a drive axle assembly 10 having, in part a housing 16, a drive shaft assembly 18, an interaxle differential 20, a clutch 22, a differential gear assembly 24, and a pinion shaft subassembly. Page 4, lines 7-13. Housing 16 is configured to house the interaxle differential 20 and the pinion shaft subassembly 26, and includes a forward opening 36 and a rear opening 38. Page 4, line 24 through Page 5, line 3. Housing 16 and pinion shaft subassembly 26 are configured such that pinion shaft subassembly 26 is installed in housing 16 through rear opening 38. Page 10, lines 10-11. The Dana reference, therefore, at most discloses the insertion of the pinion shaft subassembly 26 of the drive axle assembly 10 through the rear opening 38 of housing 16, and nothing more. The reference fails to disclose inserting any other component of the tandem axle assembly, including, but not limited to, interaxle differential 20, through the rear opening 38 of the carrier housing 16, and fails to disclose the specific order of steps of the claimed method.

Accordingly, because the Dana reference fails to disclose a method of assembling a drive axle assembly for a tandem axle assembly meeting all of the limitations recited in independent claims 1, 11 and 16, Applicant submits that the rejection of these claims under

35 U.S.C. § 102(a) is improper. Accordingly, Applicant respectfully requests that the rejection be withdrawn.

With respect to dependent claims 2-10, 12-15 and 17-20, and in addition to the arguments set forth above regarding claims 5 and 7-10, Applicant respectfully submits that these claims respectively depend from independent claims 1, 11 and 16 (all believed allowable), and therefore include each and every limitation thereof. Accordingly, for at least the reasons set forth above regarding independent claims 1, 11 and 16, Applicant respectfully submits that the rejection of these claims is likewise improper. Therefore, Applicant respectfully requests that this rejection be withdrawn.

V. REJECTION OF CLAIMS 1, 2, 4, 6-10, 16, 17 AND 20-21 UNDER 35 U.S.C. § 102(b)

Claims 1, 2, 4, 6-10, 16, 17 and 20-21 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Schlosser et al. (U.S. Patent No. 5,860,889). Applicant submits that the rejection of claims 1, 2, 4, 6-10, 16, 17 and 20-21 is improper because Schlosser et al. do not disclose or suggest all of the limitations recited in claims 1, 2, 4, 6-10, 16, 17 and 20-21. In re Paulsen, 30 F.3d 1475, 1478-79, 31 U.S.P.Q.2d 1671 (Fed. Cir. 1994); Verdegaal Bros. v. Union Oil Co. of California, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1997) (“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.”).

Independent claims 1 and 16 each recite “[a] method of assembling a drive axle assembly of a tandem axle assembly” wherein the various components of the drive axle assembly are inserted into the carrier housing of the assembly through a rear opening. For instance, the claimed method includes the step of “inserting a power divider subassembly having a plurality of differential gears into said carrier housing through said rear opening.” (emphasis added). Independent claim 21 recites “[a] differential carrier housing” comprised of “a body having...a rear opening... wherein said rear opening is configured to allow insertion of said power divider subassembly and said pinion shaft subassembly into said body”. Applicant respectfully submits that Schlosser et al. do not disclose either a method of assembling a drive axle assembly or a differential carrier housing meeting the above-recited limitations.

Schlosser et al. disclose a tandem axle assembly 20 having a housing 26 at its forward end to support an input shaft 30 by way of a bearing assembly 32. Column 3, lines 26-29. Assembly 20 further includes, among other components, an interaxle differential 40, which receives the rearward end of input shaft 30. Column 3, lines 33-35. It appears from the drawings that housing 26 includes a rear opening, however, the specification fails to disclose this opening, let alone the dimensions or configuration of the opening. Applicant assumes that the Examiner's assertion that the reference does, in fact, show a rear opening, is based on the drawings alone, as the Examiner has not provided any support in the specification for this assertion other than simply stating that it is so. However, Applicant respectfully submits that the size or configuration of the rear opening is not clear from the drawings of the reference. Schlosser et al., therefore, at most disclose a tandem axle assembly 20 having a housing 26 that has a rear opening, and nothing more. Schlosser et al. fail to disclose any method of assembling a drive axle assembly of a tandem axle assembly, let alone a method wherein the components of the drive axle assembly are inserted into the carrier housing through a rear opening. Additionally, Schlosser et al. also fail to disclose a differential carrier housing comprising a rear opening configured to allow insertion of, among other components, the power divider and pinion shaft subassemblies into the body of the carrier housing therethrough.

Accordingly, because Schlosser et al. fail to disclose either a method of assembling a drive axle assembly for a tandem axle assembly or a differential carrier housing meeting all of the limitations cited in independent claims 1, 16 and 21, respectively, Applicant submits that the rejection of these claims under 35 U.S.C. § 102(b) is improper. Accordingly, Applicant respectfully requests that the rejection be withdrawn.

With respect to dependent claims 2, 4, and 6-10 and 17 and 20, Applicant respectfully submits that these claims depend from independent claims 1 and 16 (believed allowable), respectively, and therefore, include each and every limitation thereof. Accordingly, for at least the reasons set forth above regarding independent claims 1 and 16, Applicant respectfully submits that this rejection is likewise improper. Therefore, Applicant hereby requests that this rejection be withdrawn.

VI. REJECTION OF CLAIMS 3, 5, 11-15, 18 AND 22 UNDER 35 U.S.C. § 103(a)

Claims 3, 5, 11-15, 18 and 22 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Schlosser et al. (U.S. Patent No. 5, 860,889) in view of Glaze et al. (U.S. Patent No. 4,754,847). Applicant respectfully submits that the rejection of claims 3, 5, 11-15, 18 and 22 is improper because the cited references, either alone or in combination, fail to teach or suggest all of the limitations recited in claims 3, 5, 11-15, 18 and 22.

“Patent examiners carry the responsibility of making sure that the standard of patentability enunciated by the Supreme Court and by the Congress is applied in each and every case.” MPEP § 2141 (emphasis in original).

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

MPEP § 2143. Applicant submits that neither Schlosser et al. nor Glaze et al., alone or in combination, teach or suggest all of the claim limitations.

Independent claim 11 recites “[a] method of assembling a drive axle assembly of a tandem axle assembly” wherein the various components of the drive axle assembly are inserted into the carrier housing of the assembly through a rear opening. For instance, the claimed method includes the steps of “inserting a power divider subassembly having a plurality of differential gears into said carrier housing through said rear opening” and “inserting a differential lock clutch member into said carrier housing through said rear opening”. (emphasis added.) Applicant respectfully submits that contrary to the Examiner’s assertion that Schlosser et al. disclose a clutch lock which can be inserted into the rear opening of the assembly housing, neither Schlosser et al. nor Glaze et al., alone or in combination, disclose a method of assembling a drive axle assembly meeting the above-recited limitations.

Schlosser et al. disclose a tandem axle assembly 20 having a housing 26 at its forward end to support an input shaft 30 by way of a bearing assembly 32. Column 3, lines 26-29.

Assembly 20 further includes, among other components, an interaxle differential 40, which receives the rearward end of input shaft 30 (Column 3, lines 33-35), and clutch assembly 90, which, when actuated, locks out interaxle differential 40. Column 4, lines 38-40. It appears from the drawings that housing 26 includes a rear opening, however, the specification fails to disclose this opening, let alone the dimensions or configuration of the opening. Applicant assumes that the Examiner's assertion that the reference does, in fact, show a rear opening, is based on the drawings alone, as the Examiner has not provided any support in the specification for this assertion other than simply stating that it is so. However, Applicant respectfully submits that the size or configuration of the rear opening is not clear from the drawings of the reference. Glaze et al. was cited solely for the proposition that it discloses an interaxle differential having a dog clutch ring 220 and shift fork 222 such that it would have been obvious to modify the clutch of Schlosser et al. into a shift fork clutch in view of Glaze et al.

Applicant respectfully submits that the cited references, either alone or in combination, fail to teach or suggest any method of assembling a drive axle assembly, let alone a method wherein at least a pinion shaft, a power divider subassembly and a differential lock clutch member are inserted into a carrier housing through a rear opening therein. Rather, alone or in combination, the cited references disclose, at most, various components of tandem axle assemblies, while Glaze et al. disclose inserting only the differential gear case into the housing through the rear opening in the housing. Neither reference, alone or in combination disclose any method of assembling a drive axle assembly, let alone one in which the rear opening in the carrier housing is large enough to allow for the insertion of the various components, such as the power divider subassembly and clutch lock, into the carrier housing through the rear opening.

Accordingly, because the cited references, either alone or in combination, fail to teach or suggest each and every limitation of the inventive method of claim 11, Applicant respectfully submits that this rejection of independent claim 11 under 35 U.S.C. § 103(a) is improper. Therefore, Applicant respectfully requests that the rejection be withdrawn.

With respect to independent claims 3 and 5, 12-15, and 18, Applicant respectfully submits that these claims respectively depend from independent claims 1, 11 and 16 (believed

allowable), and therefore, include each and every limitation thereof. Accordingly, for at least the reasons set forth above, Applicant respectfully submits that this rejection is improper, and therefore, Applicant hereby requests that this rejection be reconsidered and withdrawn.

With respect to claim 22, Applicant respectfully submits that this claim depends from independent claim 21 (believed allowable), and therefore, includes each and every limitation thereof. Accordingly, Applicant respectfully submits that this rejection is improper, and therefore, respectfully requests that the rejection be reconsidered and withdrawn.

VII. ALLOWABLE SUBJECT MATTER

Claim 23 is objected to as being dependent upon a rejected base claim. The Examiner asserts, however, that this claim would be allowable if rewritten in independent form to include all of the limitations of the base claim and any intervening claims. Applicant submits, however, that claim 23 depends from independent claim 21 (believed allowable), and therefore, includes each and every limitation thereof. Accordingly, for at least the reasons set forth above regarding the allowability of claim 21, claim 23 is likewise allowable. Accordingly, Applicant respectfully requests that this objection be reconsidered and withdrawn.

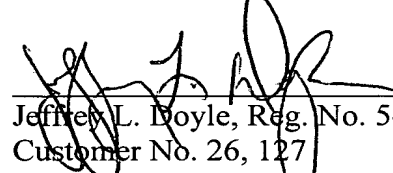
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CONCLUSION

Applicant respectfully submits that claims 1-23 are now in condition for allowance and hereby respectfully requests a Notice of Allowance of the same. If the Examiner has any further questions regarding this matter, please contact Applicant's undersigned attorney.

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Respectfully Submitted,



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